

In the Claims:

Cancel Claims 1-14 and add the following new Claims 15-47.

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1 15. (New) A system for using a shared key to transmit secure data
2 between a client and a server, the system comprising:
3 an encrypt/decrypt engine for using the shared key to encrypt
4 or decrypt data, the encrypt/decrypt engine being
5 configured for delivery via a web page to a client in
6 response to a user request and further configured to
7 encrypt data independently of an identity of the client;
8 wherein the server includes a user private keys database
9 configured to store the shared key.

1 16. (New) The system of claim 15 wherein the shared key is a user's
2 private key entered by a user into the web page.

1 17. (New) The system of claim 15 further comprising a secure data
2 database configured to store data received from the client and,
3 upon the completion of a processing step, to deliver the stored
4 data in an encrypted format to the client or to another client.

1 18. (New) The system of claim 15 further comprising a secure data
2 database configured to store data received from the client and,
3 upon receipt of a request for the data, to deliver the stored data
4 in an encrypted format to the client or to another client.

1 19. (New) The system of claim 15 wherein the shared key is
2 transmitted between the server and the client as few as zero
3 times and the shared key is transmitted between the server and
4 the user as few as one time.

1 20. (New) The system of claim 15 wherein the shared key is a user's
2 private key entered by a user.

1 21. (New) The system of claim 15 wherein the client encrypt/decrypt
2 engine is installed on the client.

1 22. (New) A system for using a shared key in transmitting secure
2 data between a client and a server, the system comprising:
3 an encrypt/decrypt engine for using the shared key in
4 encrypting data, the encrypt/decrypt engine being
5 configured to encrypt data independently of an identity of
6 the client; and
7 a user private keys database located on the server and
8 configured to store the shared key, the shared key being
9 the private key of a user.

1 23. (New) The system of claim 22 wherein the server is configured to
2 decrypt encrypted data received from the client using the shared
3 key and to use a private server key to re-encrypt the decrypted
4 data.

1 24. (New) The system of claim 23 further comprising a secure data
2 database configured to store the encrypted data received from
3 the client and re-encrypted by the server and to deliver the
4 stored data to the client or to another client; the delivered data,
5 after the completion of a processing step, being encrypted with
6 the shared key or with another shared key.

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1 25. (New) The system of claim 23 further comprising a secure data
2 database configured to store the encrypted data received from
3 the client and re-encrypted by the server and to deliver the
4 stored data to the client or to another client; the delivered data
5 being, upon receipt of a request for the data, encrypted with the
6 shared key or with another shared key.

1 26. (New) The system of claim 25 wherein the request is from the
2 user.

1 27. (New) The system of claim 25 wherein the request is from an
2 other user.

1 28. (New) A system for using a shared key in transmitting secure
2 data between a client and a server, the system comprising:
3 an encrypt/decrypt engine for using the shared key entered by a
4 user to encrypt data entered by the user, the
5 encrypt/decrypt engine being configured such that all
6 data entered by the user and stored on the client is stored
7 in encrypted form, and further configured to encrypt data
8 independently of an identity of the client;
9 the server including a user private keys database configured to
10 store the shared key, the shared key being a private key of
11 a user; and
12 the client.

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1 29. (New) The system of claim 28, wherein the encrypt/decrypt
2 engine uses a symmetric key encryption/decryption algorithm
3 for encrypting and decrypting data.

1 30. (New) The system of claim 28, further including a web server
2 engine configured for the user to securely send or receive data
3 from the client to the server.

1 31. (New) A method for using a shared key in receiving secure data
2 on a server, comprising the steps of:
3 delivering from a server to a client a web page including an
4 encrypt/decrypt engine;
5 encrypting data on the client using the encrypt/decrypt engine
6 and a shared key entered by a user of the client, the
7 shared key being shared between the user and the server;
8 delivering the encrypted data from the client to the server;
9 receiving the encrypted data at the server;
10 decrypting the encrypted data at the server using the shared
11 key; and
12 processing the decrypted data.

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1 32. (New) The method of claim 31, wherein the step of processing the
2 decrypted data includes the steps of:
3 encrypting the decrypted data with a private server key; and
4 storing the encrypted data in a database.

1 33. (New) The method of claim 31, wherein the step of processing the
2 decrypted data includes the steps of:
3 re-encrypting the data with an other user's private key shared
4 between the other user and the server; and
5 sending the re-encrypted data to the other user.

1 34. (New) The method of claim 31, wherein the step of processing the
2 decrypted data includes the steps of:
3 decrypting the encrypted data with the private server key;
4 re-encrypting the data with a second user's key shared between
5 the second user and the server; and
6 sending the re-encrypted data to the second user.

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1 35. (New) The method of claim 31, wherein the step of processing the
2 decrypted data includes the steps of:
3 processing the data according to an instruction of the user;
4 re-encrypting the processed data using the user's shared key;
5 and
6 sending the re-encrypted processed data to the user.

1 36. (New) The method of claim 31, wherein the step of processing the
2 decrypted data includes storing the decrypted data in a secure
3 database.

1 37. (New) A computer-readable medium comprising program
2 instructions for causing a computer system to use a shared key
3 in receiving secure data at a server, by the steps of:
4 delivering a web page from the server to a client, the web page
5 including an encrypt/decrypt engine and being configured
6 to use the encrypt/decrypt engine and a shared key
7 entered by a user of the client to encrypt data on the
8 client, the shared key being shared between the user and
9 the server;
10 receiving the encrypted data at the server;
11 decrypting the encrypted data using the shared key; and
12 processing the decrypted data.

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1 38. (New) A computer-readable medium comprising program
2 instructions for causing a computer system to receive secure
3 data on a server using a shared key, by the steps of:
4 delivering a encrypt/decrypt engine from the server to a client,
5 the encrypt/decrypt engine being configured to use a
6 shared key entered by a user of the client to encrypt data
7 on the client, the shared key being shared between the
8 user and the server and the encryption being independent
9 of an identity of the client;
10 receiving the encrypted data at the server;
11 decrypting the encrypted data using the shared key; and
12 processing the decrypted data.

1 39. (New) The computer readable medium of claim 38, further
2 comprising program instructions for causing the processed
3 decrypted data to be re-encrypted using a private server key.

1 40. (New) The computer-readable medium of claim 39, further
2 comprising program instructions for causing the processed
3 decrypted data to be stored in a secure database.

1 41. (New) The computer-readable medium of claim 38, wherein
2 processing the decrypted data includes the steps of:
3 re-encrypting the data with the private server key;
4 storing the re-encrypted data;
5 decrypting the stored data with the private server key;
6 encrypting the data with a second user's key shared between
7 the second user and the server; and
8 sending the encrypted data to the second user.

1 42. (New) The computer-readable medium of claim 38, wherein
2 processing the decrypted data includes the steps of:
3 processing the data according to an instruction of the user;
4 encrypting the processed data using a shared key; and
5 sending the encrypted processed data to the user or to another
6 user.

1 43. (New) A method of using a shared key in transmitting secure data
2 between a client and a server using a shared key, comprising
3 the steps of:
4 encrypting data using the shared key with an encrypt/decrypt
5 engine configured to encrypt data independently of an
6 identity of the client, the shared key being entered by a
7 user of the client;
8 delivering the encrypted data from the client to the server;
9 receiving the encrypted data at the server;
10 decrypting the encrypted data at the server using the shared
11 key, the shared key being stored in a user private keys
12 database; and
13 processing the decrypted data.

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1 44. (New) The method of claim 42, wherein processing the decrypted
2 data includes the steps of:
3 encrypting the decrypted data with a private server key; and
4 storing the encrypted data in a database.

1 45. (New) The method of claim 42, wherein the step of processing the
2 decrypted data includes the steps of:
3 encrypting the data with an other user's private key shared
4 between the other user and the server; and
5 sending the encrypted data to the other user.

1 46. (New) The method of claim 42, wherein the step of processing the
2 decrypted data includes the steps of:
3 decrypting the re-encrypted data with the private server key;
4 encrypting the data with a second user's key shared between
5 the second user and the server; and
6 sending the encrypted data to the second user.

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1 47. (New) The method of claim 42, wherein the step of processing the
2 decrypted data includes the steps of:
3 processing the data according to an instruction of the user;
4 re-encrypting the processed data using the user's shared key;
5 and
6 sending the re-encrypted processed data to the user.